

***Remarks***

Reconsideration and withdrawal of the outstanding rejections are respectfully requested. Claims 83-106 are now pending in this application with claims 83, 85-88, 90-93, 95, 96, 98, 99, and 101-105 being the independent claims. Reconsideration of the present application is respectfully requested.

***I. Support for the Amendments***

Support for the foregoing amendments to the claims may be found throughout the specification as originally filed, either inherently or explicitly. New claims 83-106 correspond to the claims cancelled herewith as follows.

New claim	Cancelled claim(s)	New claim	Cancelled claim
83	33+15	95	61+67
84	33+34+15	96	61+68
85	35+15	97	69
86	36+15	98	70+76
87	37+43	99	70+77
88	37+44	100	78
89	45	101	79
90	46+43	102	80
91	46+44	103	81
92	52+58	104	82
93	52+59	105	31
94	60	106	32

Hence, the foregoing amendments to the claims do not add new matter, and their entry into the present application is respectfully requested.

**II. The Rejection under 35 U.S.C. § 112, First Paragraph**

In the Office Action at page 3, section 4, claim 33 is rejected under 35 U.S.C. § 112, first paragraph, as allegedly not enabled. Applicant respectfully traverses this rejection.

According to the Examiner:

the specification, does not reasonably provide enablement for a method of determining the mass of [an] unknown nucleic acid wherein the staining intensity of [an] unknown nucleic acid is determined by comparing the staining intensity of the unknown to a known marker band/ladder.

Clearly one could determine the approximate molecular weight of any nucleic acid fragment as long as the length of the unknown nucleic acid fragment could be determined/estimated. One need only multiply the number of base pairs present in a nucleic acid fragment with the average mass of a dNMP bp to arrive at the answer. However, there is no explanation in the specification as to how one can determine the mass of an unknown nucleic acid (i.e dsDNA fragment) by comparing the staining intensity of the unknown nucleic acid to the staining intensity of a known marker band/ladder.

Applicant respectfully disagrees with the Examiner's contentions. Claim 33 has been cancelled and replaced by new claim 83. One of ordinary skill in the art can practice the method of claim 83 with no more than routine experimentation. It appears that the Examiner is confusing the number of base pairs/molecular weight with the mass/nanograms of a nucleic acid molecule. The present invention is directed to determining the mass, not the molecular weight or number of base pairs of a nucleic acid molecule. Moreover, page 9, lines 14-21, of Applicant's specification describes how one determines the mass of a nucleic acid molecule by comparing the

intensity of fluorescence of the nucleic acid molecule with the intensity of a similarly sized fragment of known mass (i.e. having a known number of nanograms). Thus, the staining intensity of the nucleic acid molecule in question will be proportional to the mass of the nucleic acid molecule and the total mass can be determined by reference to the staining intensity of a band at a similar position. The rejection is clearly in error and must be withdrawn.

**III. The Rejection under 35 U.S.C. § 112, Second Paragraph**

In the Office Action at page 3, the Examiner has rejected claims 23-30 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant respectfully traverses this rejection.

Claims 23-30 have been cancelled, thus rendering this basis for rejection moot. New kit claims 90 and 91 do not refer to "the first container." Withdrawal of the rejection is respectfully requested.

**IV. The Rejections under 35 U.S.C. § 102(b)/103(a)**

In the Office Action at pages 4-5, the Examiner has rejected claims 15-30, 34, 37-39, 45-48, 52-54, 60-63, 69-72 and 78 under 35 U.S.C. § 102(b) as allegedly anticipated by Carlson *et al.*, European Patent Application No. 0 466 404 ("Carlson") or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Carlson *et al.* Applicant respectfully traverses this rejection.

Claims 15-30, 34, 37-39, 45-48, 52-54, 60-63, 69-72 and 78 have been canceled, thus rendering moot this rejection. Withdrawal of the rejection is respectfully requested.

In the Office Action at pages 5-6, the Examiner has rejected Claims 15-30, 34, 37-42, 45-51, 52-57, 60-66, 69-75 and 78 under 35 U.S.C. § 102(b) as allegedly anticipated by The Gibco BRL Catalog (1991/1992) or, in the alternative, under 35 U.S.C. § 103(a), as obvious over this Catalog. Applicant respectfully traverses this rejection.

Claims 15-30, 34, 37-42, 45-51, 52-57, 60-66, 69-75 and 78 have been cancelled thus rendering moot this rejection. Withdrawal of the rejection is respectfully requested.

**VI. Allowable Subject Matter**

Applicant thanks the Examiner for indicating that claims 31-32 and 79-82 are allowable. These claims have been cancelled and replaced by new claims 105, 106, 101, 102, 103 and 104, respectively.

**VII. Objection to Claims**

The Examiner objected to claims 33, 35, 36, 43, 44, 58, 59, 67, 68, 76 and 77 as being dependent upon a rejected base claim. These claims have been cancelled and rewritten as independent claims 83, 85, 86, 87, 88, 92, 93, 95, 96, 98 and 99, respectively. Therefore, these claims are in condition for allowance.

**IX. Conclusion**

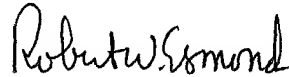
All of the stated grounds of rejections have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding objections and rejections. Applicant believes that a full and complete response has been made to the outstanding

Office Action and, as such, the present application is in condition for allowance. Prompt and favorable consideration of this Amendment is respectfully requested.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Respectfully submitted,

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**Version with markings to show changes made**

Claims 15-82 have been cancelled.

Claims 83-106 have been added.